

### AMENDMENTS TO THE CLAIMS

1-12. (Cancelled)

13. (Currently Amended) A method of identifying a target protein in a biochemical pathway of a pathogen for pharmaceutical intervention comprising:

(a) selecting a first potential target protein in said biochemical pathway and expressed by a pathogen genome;

(b) retrieving a first interaction fingerprint comprising a set of values representative of binding strength between said potential target protein expressed by said pathogen genome and a corresponding set of ligands;

(c) retrieving a second interaction fingerprint comprising a set of values representative of binding strength between a protein expressed by ~~the~~a human genome and said set of ligands;

(d) detecting differences between said first interaction fingerprint and said second interaction fingerprint;

(e) repeating steps (c) and (d) for a plurality of different proteins encoded by the human genome; and

(f) identifying said potential target protein as a target protein for pharmaceutical intervention based at least in part on said detected differences.

14-20. (Cancelled)

21. (New) The method of claim 13, wherein steps (c) and (d) are repeated for substantially all proteins encoded by the human genome.

22. (New) The method of claim 13, wherein identifying said potential target protein as a target protein for pharmaceutical intervention comprises selecting said potential target protein as a target protein if said detected differences are greater than differences between interaction fingerprints of other potential target proteins and the plurality of proteins encoded by the human genome.